

REMARKS

Claims 5, 10, 13-15 have been amended. Claims 16-18 have been added. Claims 1-18 are currently pending in the present application. No new matter has been added. Reexamination and reconsideration of the application are respectfully requested.

REJECTION OF CLAIMS 1, 5-9 UNDER 35 U.S.C. 102(e)

Claims 1, 5-9 are rejected under 35 U.S.C. 102(e) for the reasons set forth on pages 2-3 of the Action. Specifically, claims 1, 5-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Terashima et al (U.S. Pat. No. 6,538,762, hereinafter referred to as "Terashima" or "the Terashima reference").

The rejections under 35 U.S.C. 102(e) are respectfully traversed, at least insofar as applied to the new and amended claims, and reconsideration and reexamination of the application is respectfully requested for the reasons set forth herein below.

FIG. 2, FIG. 5, elements 5 and 15 of FIG. 2, Column 3, lines 60-67, Column 4, lines 30-37 & 62-67, Column 5, lines 1-40, Column 6, lines 3-15, Column 11, lines 25-32, and Column 12, lines 8-15, of the Terashima reference are cited as teaching the printing system and office machine as claimed. It is respectfully submitted that the Terashima reference fails to teach or suggest the printing system and office machine as claimed.

Specifically, the Terashima reference fails to teach or suggest inter alia the following claim limitations:

“an office machine having .. a PC card slot for receiving PC cards,” and

“a PC card for removably coupling with the PC card slot of the office machine and for coupling with the host device, the PC card having a formatter integrated circuit for providing formatter functions, the formatter integrated circuit for receiving printer formatter ready data from the host device and based thereon for generating print engine ready data,” as claimed in claim 1.

Moreover, the Terashima reference fails to teach or suggest inter alia the following claim limitations:

“PC card slot coupled to the rendering engine for receiving a removable PC card that includes a printer formatter; wherein the PC card slot is utilized to transfer formatter output from the printer formatter to the rendering engine,” as claimed in claim 5.

First, it is respectfully submitted that circuit 5 of Terashima is not a PC card. For example, circuit 5 of Terashima is only described as an external circuit (col. 4, lines 31-32) or a hardware logic circuit (col. 3, line 64) that is not the same as the PC card as claimed. This position is further supported by Terashima’s description of connections 13 and 15 as parallel ports that couple to parallel cable (e.g., printer cables). (See, col. 4, lines 29 to 35.) Parallel printer cables and the circuit 5 of Terashima do not fairly teach the PC card as claimed in claim 1 and the office machine with a PC card slot as claimed in claim 5.

Furthermore, Terashima does not appear to contemplate the use of a PC card. Although Terashima specifically contemplates implementing the control circuit 5 in the

form of an optional board that is built into a host computer (see, FIG. 3 & col. 3, lines 41-42), and further contemplates implementing the control circuit 5 in the form of an optional board that is built into a printer (see, FIG. 4 & col. 3, lines 38-40), Terashima does not fairly teach or suggest the PC card or an office machine that includes a PC slot as claimed.

Moreover, it appears that circuit 5 of Terashima performs different functions than the printer formatter as claimed. Whereas circuit 5 of Terashima offloads some or the functions (e.g., color conversion and halftoning 43) normally performed by the driver software, executing on the host, to ease the burden on the host PC and increase printing speed for ink-jet printers, the printer formatter as claimed includes the hardware and software to receive print controller ready data (e.g., page data) and performs all operations necessary on the print controller ready data to generate print engine ready data. For example, the color conversion and halftone section 43 (see FIG. 5) cited in the Action does not fairly teach or suggest the formatter as claimed because 1) the inputs of these two circuits are different, 2) the outputs of these two circuits are different, and 3) these two circuits operate in a very different manner.

It is noted that new dependent claims have been added to recite specific examples of the PC card claimed in claims 1, 5 and 8. Support for these new claims may be found in the specification on page 6, lines 18-24.

Dependent claims 2-4 & 6-9 incorporate all the limitations of independent claims 1 and 5, respectively. In this regard, the dependent claims also add additional

limitations, thereby making the dependent claims a fortiori and independently patentable over the cited reference.

One aspect of the invention is to provide a system that allows the user to be able to easily access, configure, and upgrade the formatter. Unfortunately, this is not possible with prior art printer system configurations. (see Background section of application). This aspect is neither taught nor suggested by Ohara.

In view of the foregoing, it is respectfully submitted that the Terashima reference, whether alone or in combination, fails to teach or suggest the printing system and office machine as claimed. Accordingly, it is respectfully requested that the claim rejections under 35 U.S.C. Section 102(e) be withdrawn.

#### REJECTION OF CLAIMS UNDER 35 U.S.C. 103(a)

Claims 2-4 are rejected under 35 U.S.C. 103(a) for the reasons set forth on pages 3-4 of the Action. Specifically, claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terashima et al (U.S. Pat. No. 6,538,762, hereinafter referred to as "Terashima" or "the Terashima reference") in view of Benjamin et al. (U.S. Pat. No. 6,113,208, hereinafter referred to as "Benjamin" or "the Benjamin reference").

Regarding claim 2, the Action asserts that the backend parameters programs, col. 6, lines 15-40 teach the printer formatter firmware that when executed by the printer formatter causes the printer formatter to perform formatter functions, as claimed, except for the automatic update module. The Benjamin reference is cited for teaching "an automatic update module that when executing on the host device automatically

downloads (automatically downloading updated/version of printer driver via Internet/Website, col. 3, lines 50-67 to col. 4, lines 1-40) to the host device from a source one of an device automatically downloads to the host device from a source one of an updated version of printer formatter firmware and the printing software.” The Action further states that it would have been obvious to one of ordinary skill in the art at the time the invention was made to “modify Terashima as per teachings of Benjamin because of the following reason: (1) downloading and installing the latest/newest compatible printer driver will improve operating efficiency of the printer.”

The rejections under 35 U.S.C. 103(a) are respectfully traversed, at least insofar as applied to the new and amended claims, and reconsideration and reexamination of the application is respectfully requested for the reasons set forth herein below.

Benjamin is cited for teaching downloading a printer driver from a Website. Specifically, col. 3, lines 50-67 and col. 4, lines 1-40 are cited for this teaching. It is respectfully submitted that the combination of Terashima et al and Benjamin fails to teach or suggest the invention as claimed for the same reasons as advanced previously. Benjamin does not cure the deficiencies of Terashima.

In view of the foregoing, it is respectfully submitted that the Ohara reference, whether alone or in combination with the Benjamin reference, fails to teach or suggest the printer controller and method as claimed. Accordingly, it is respectfully requested that the claim rejections under 35 U.S.C. Section 103(a) be withdrawn.

Claims 10-14 are rejected under 35 U.S.C. 103(a) for the reasons set forth on pages 5-7 of the Action. Specifically, claims 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terashima et al (U.S. Pat. No. 6,538,762, hereinafter referred to as "Terashima" or "the Terashima reference") in view of Ohara et al. (U.S. Pat. No. 6,438,643, hereinafter referred to as "Ohara" or "the Ohara reference").

The Action relies on Terashima to teach elements (a) and (b). However, the Action acknowledges that Terashima does not teach elements (c) to (e). Ohara is relied upon to teach elements (c) to (e).

The rejections under 35 U.S.C. 103(a) are respectfully traversed, at least insofar as applied to the new and amended claims, and reconsideration and reexamination of the application is respectfully requested for the reasons set forth herein below.

Specifically, the Terashima reference, whether alone or in combination with Ohara, fails to teach or suggest inter alia the following claim limitations: "determining whether the PC card has been operationally coupled to the slot of the office machine," as claimed in claim 10. First, it is noted that FIG. 2, and col. 4 lines 30-37 clearly show that circuit 5 is constantly connected to the printer and not removably coupled to the printer as a PC card as claimed. It is only with a strained interpretation that circuit 5 is somehow becomes a removable PC card. Moreover, in Terashima's system there is no check to determine whether circuit 5 is connected to the printer.

Furthermore, the Terashima reference, whether alone or in combination with Ohara, fails to teach or suggest inter alia the following claim limitations: "when it is determined that the PC card has been operationally coupled to the office machine, then

determining whether the printer formatter program is loaded in the memory of the printer formatter,” as claimed in claim 10. The Action equates the printer formatter program as claimed with the backend parameters of Terashima (col. 6, lines 15-40). However, it is respectfully submitted that the backend parameters are very different from and do not fairly teach or suggest, “determining whether the printer formatter program is loaded in the memory of the printer formatter,” as claimed. For example, the back-end parameters are described as parameters needed by color conversion halftoning section 43 to control horizontal or vertical resolution of a CMYK raster image, number of dots in a raster, number of vertical dots on one page, dot size, number of nozzles used, etc. (See col. 6, lines 15-38). Consequently, backend parameters are parameters that are needed by back-end programs and are very different from a printer formatter program. In this regard, Terashima does not teach or suggest downloading the printer formatter program to the circuit 5.

In view of the foregoing, it is respectfully submitted that the Terashima reference, whether alone or in combination with the Ohara reference, fails to teach or suggest the method as claimed. Accordingly, it is respectfully requested that the claim rejections under 35 U.S.C. Section 103(a) be withdrawn.

Claims 15 is rejected under 35 U.S.C. 103(a) for the reasons set forth on page 7 of the Action. Specifically, claims 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Terashima et al (U.S. Pat. No. 6,538,762, hereinafter referred to as “Terashima” or “the Terashima reference”) in view of Ohara et al. (U.S. Pat. No. 6,438,643, hereinafter referred to as “Ohara” or “the Ohara reference”) and further in

view of Austin (U.S. Pat. No. 6,665,089, hereinafter referred to as "Austin" or "the Austin reference").

Austin is cited for teaching performing a cyclic redundancy check. Specifically, FIG. 18, col. 12, lines 60-67 and col. 13, lines 1-30 are cited for this teaching. It is respectfully submitted that the combination of Terashima et al., Ohara, and Benjamin fails to teach or suggest the invention as claimed for the same reasons as advanced previously. Austin does not cure the deficiencies of Ohara and Terashima.

In view of the foregoing, it is respectfully submitted that the Ohara reference, whether alone or in combination with the Terashima reference and the Austin reference, fails to teach or suggest the printer controller and method as claimed. Accordingly, it is respectfully requested that the claim rejections under 35 U.S.C. Section 103(a) be withdrawn.

**THE PROPOSED COMBINATIONS ARE BASED ON IMPERMISSIBLE  
USE OF THE CLAIMED INVENTION AS A TEMPLATE TO PIECE TOGETHER  
THE TEACHINGS OF THE CITED REFERENCES**

It is respectfully submitted that the references are improperly combined. It appears that the Action uses improper hindsight to select components or elements from the different references to arrive at the claimed invention.

Assuming arguendo that the different components of the different references may be combined in the manner outlined in the Action, the Federal Circuit has stated, "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the



desirability of the modification.” In re Fritch, 972 F.2d 1260, 23 USPQ 2d 1780, 1783–84 (Fed. Cir. 1992) [emphasis added].

The Federal Circuit has further held In re Fritch, 972 F.2d 1260, 23 USPQ 2d 1780, 1783 (Fed. Cir. 1992):

In proceedings before the Patent and Trademark Office, the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art. ... “[The Examiner] can satisfy this burden only by showing some objective teaching in the prior art ... would lead that individual to combine the relevant teachings of the references. In re Fine, 837 F.2d 1071, 1074, 5 USPQ 2d 1596, 1598 (Fed. Cir. 1988). [emphasis added.]

Consequently, it appears that the current patent application has been improperly used as a basis for the motivation to combine or modify the components selected from the cited references (e.g., Terashima, Benjamin, Ohara, Austin) to arrive at the claimed invention. Stated differently, the proposed combination of the cited references appear to be based on hindsight since the cited references do not teach or suggest a motivation to combine the respective elements of each reference in the manner proposed by the Action.

The Federal Circuit has held, “It is impermissible to use the claimed invention as an instruction manual or “template” to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated, “[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.” (quoting In re Fine, 837 F.2d 1071, 1075, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988)), In re Fritch, 23 USPQ 2d 1780, 1784 (Fed. Cir. 1992). [emphasis added.]

Furthermore, the Federal Circuit has held, “The combination of elements from non-analogous sources, in a manner that reconstructs the applicant's invention only with the benefit of hindsight, is insufficient to present a prima facie case of obviousness. There must be some reason, suggestion, or motivation found in the prior art whereby a

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person of ordinary skill in the field of the invention would make the combination. That knowledge can not come from the applicant's invention itself." In re Oetiker, 977 F.2d 1443, 24 USPQ 2d 1443, 1446 (Fed. Cir. 1992)

Accordingly, hindsight reconstruction may not be used to pick a component from one reference and another component from another reference to arrive at the invention as claimed. Accordingly, it is respectfully requested that the rejections of claims 2-4, 10-14, and 15 under 35 U.S.C. 103(a) be withdrawn.

For all the reasons advanced above, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the pending claims are requested, and allowance is earnestly solicited at an early date. The Examiner is invited to telephone the undersigned if the Examiner has any suggestions, thoughts or comments, which might expedite the prosecution of this case.

Respectfully submitted,



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(Date)